

AMENDED CLAIMS

1.(Currently Amended) A method for sterilizing containers (2) of plastic material and for filling the containers with liquid substances, comprising the steps of including:
feeding said containers (2) in a succession along a feeding path (P), so as to bring the containers (2) into a covering structure (S) defining a closed aseptic environment containing a one-block apparatus for sterilizing and filling the containers;
sterilizing said containers (2) in a first portion (6) of said apparatus (1), situated along a first section (T) of said path (P);
weighed filling of said containers (2) with said liquid substance and subsequently closing the filled and weighed container with pre-sterilized plugs/caps, in a second portion (12) of said apparatus (1), situated along a second section (TR) of said path (P), after first section (T).

2.(Currently Amended) A method as claimed in claim 1, wherein said sterilizing step comprises characterized in that sterilizing includes:
diffusing a sterilized substance inside each of said containers (2) fed along a first part (T1) of said section (T);
diffusing a sterilizing substance inside each of said containers (2) fed along a first part (T1) of said section (T);
diffusing pressurized steam inside each container (2), while the container is moved along a second part (T2) of said section (T) after said first part (T1); and
drying the inside of the container (2) by feeding filtered sterile air through the opening of the container while the container is moved forward along a third part (T3) of said section (T), .

3.(Currently Amended) A method as claimed in claim 2, wherein characterized in that said sterilizing substance is hydrogen peroxide H_2O_2 .

4.(Currently Amended) A method as claimed in claim 1 further comprising any of the claims from 1 to 3, characterized in that separating said second portion (12) is separated from said first portion (6) by a wall (W), being a part of said structure (S); with , and providing a circulation or laminar flow of filtered/purified air (LAF-Laminar Flow) inside said second portion (12).

5.(Currently Amended) A method as claimed in any of the claims from 1-4, characterized in that wherein said containers (2) are made of LDPE (Low Density Polyethylene).

6.(Currently Amended) A method as claimed in any of the claims from 1-5, characterized in the claim 1 wherein said filling substance is a liquid substance used in food field.

7.(Currently Amended) A one-block apparatus (1) for sterilizing and filling containers (2) of plastic material with liquid substances, the one-block apparatus comprising characterized in that it includes:

a unit (7) for sterilizing and drying an the inside of the containers (2);

a unit (13) for weighted filling of said containers (2) with said liquid substances; and

a unit (18) for closing said containers (2) with closing plugs/caps;

said one-block apparatus being contained in a covering structure (S) for defining an aseptic environment;

said sterilizing unit (7) and filling unit (13) being separated by a wall (W) of the covering structure (S); and

said filling unit (13) being subjected to a circulation or laminar flow of filtered/purified air (LAF-Laminar Flow).

8.(Currently Amended) An apparatus as claimed in claim 7, characterized in that wherein said sterilizing unit (7) includes a rotating turret (8) having a plurality of work stations (9); each of said work stations (9) including pliers means (10) for holding and overturning the containers (2) and for bringing each container from a position with an opening is turned upwards to a position in which the opening turned downwards, and vice-versa; and nozzle means (11) connected to said pliers means (10) and entering said opening of said containers (2) to sterilize the an inside of the containers inside.

9.(Currently Amended) An apparatus as claimed in claim 8, characterized in that wherein said nozzle means (11) have a triple inner canalization (11a, 11b);

with a central canalization of each of said nozzles (11) being connected to a tank of a sterilizing substance to diffuse said sterilizing substance inside said containers (2); and lateral canalizations (11b) of each of said nozzles (11) being connected alternately with a source of pressurized steam and with a source of purified sterile air, to wash and dry the inside of said containers (2) before their filling said containers.

10.(Currently Amended) An apparatus as claimed in any of the claims from 7 to 9, characterized in that claim 7 wherein said containers (2) are made of LDPE (Low Density Polyethylene).

11.(Currently Amended) An apparatus as claimed in any of the claims from 7 to 10, characterized in that claim 7 wherein said filling unit (13) fills performs the weighted filling (net weight) of said containers (2) with a liquid substance used in food processing field.